

Section 4-2: Problem Solving Skills: Simulations

By the end of this lesson, you should be able to answer:

- How are simulations used to relate probabilities?

Where you might see this in the real world:

- Music, market research, games, statistics, probability

Define the following terms:

1. Act It Out
2. Simulation

In order to complete a simulation, we need to have a manipulative (an object that we can physically work with) to help us act out the experiment. Often times this is done with a coin, dice, or a spinner. Luckily for us, we don't need to have any of these items, as we have Probability Simulation to use in our TI-84s!

In order to access Probability Simulation, we need press the APPS button, then find Prob Sim. Press ENTER twice to bring up the menu of different simulations. Today, we will be exploring the different simulations together. If you don't have a TI-84 or other graphing calculator at home to work with these simulations, you can always use a real coin, dice, spinner, or deck of cards.

Example 1: Matt Mitarnowski has a batting average of .250. Design and run a simulation for his next ten at bats. Record your results. What is the probability that Matt gets exactly 3 hits?

What could we use as a simulation when the following ratios are given:

a. 1:2

b. 1:4

c. 1:6

Homework:

"If you tell the truth you don't have to remember anything." – Mark Twain